

Trisobuild® R & RWL

External site assembled insulated roof systems

Trisobuild® R is Building Systems UK's site-assembled built-up roofing system that comprises a Colorcoat® pre-finished steel LP1000 trapezoidal liner, the Instaloc® Plus spacer system for structural depth and insulation cavity, a glass fibre quilt insulation layer and a Colorcoat® pre-finished steel external weathering profile. The Trisobuild® RWL is the walkable liner variant, using a more robust 0.7mm RL32 liner ideal for safe access during construction.

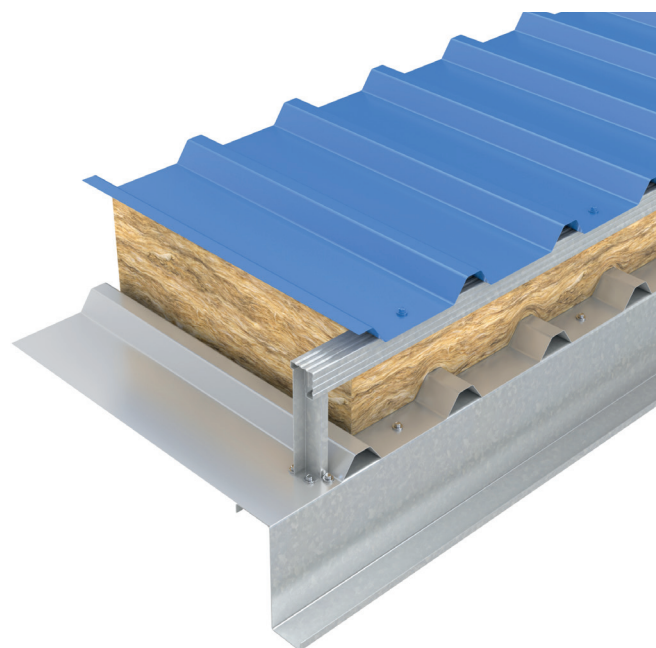
Manufactured in factory conditions operating to quality management standard BS EN ISO 9001:2015, environmental management standard BS EN ISO 14001: 2015 and occupational health and safety management standard BS EN ISO 45001:2018.

Full traceability of all component materials and certified 'very good' to BRE's responsible sourcing standard BES 6001. Available with a bespoke Environmental Product Declaration to EN 15804.

Table 1 - System information

	Trisobuild® R	Trisobuild® RWL
External Profiles	R32, R35, R40, R46, 42/960, 13.5/3*	
External finishes	Colorcoat HPS200 Ultra®, Colorcoat Prisma®	
Internal finishes	Colorcoat® PE15, Colorcoat® HR	
Spacer System	Instaloc Plus	
Insulation	0.040 W/mK lambda	
Liner	LP1000	RL32
System Components (Platinum Plus approved suppliers)	Fasteners, rooflights, flashings, butyl sealants, fabrications, fall restraint, roof penetrations, profile fillers	

* 13.5/3 is limited to a 10-degree pitch after taking in consideration deflection.



Platinum® Plus 25 year system guarantee.

Trisobuild® and a range of system components including fixings, wall lights, sealants and fillers are available with our Platinum® Plus system guarantee providing a complete building envelope solution guarantee for 25 years.

Colorcoat® pre-finished steel is used as standard, offering long-term performance with the Confidex® Guarantee and providing peace of mind for up to 40 years. [Click here to learn more](#)



Our online specification generator tool has been designed to help you create the right specification to suit the needs of your project, making sure all roofing and cladding components listed are compatible and perform as a guaranteed system.



[Click here to build your specification](#)

System Performance

Roof Exposure to fire

- The Trisobuild® external profile, in all available finishes, achieves BROOF(t4) in accordance with BS EN 1187.

Thermal Performance

- Trisobuild® R & RWL complies with the minimum requirements of the conservation of fuel and power sections of the Building Regulations for England and Wales (Part L2) and Scotland (Technical Handbook Section 6 Energy).
- Thermal performance is calculated using computer modeling in accordance with EN ISO 10211 and assessed using the methods and conventions set out in the Building Research Establishment's Document BR 443.

Table 2 - Trisobuild® R

Bracket height (mm)	Insulation Depth (mm)	U-value (W/m²K)
140	140	0.30
160	160	0.26
180	180	0.24
200	200	0.21
220	220	0.19
240	240	0.18
260	260	0.16
280	280	0.15
300	300	0.14
320	320	0.13
340	340	0.12
360	360	0.11
380	380	0.11
400	400	0.10

Table 3 - Trisobuild® RWL

Bracket height (mm)	Insulation Depth (mm)	U-value (W/m²K)
140	140	0.32
160	160	0.28
180	180	0.25
200	200	0.22
220	220	0.20
240	240	0.18
260	260	0.17
280	280	0.16
300	300	0.15
320	320	0.13
340	340	0.13
360	360	0.11
380	380	0.11
400	400	0.10

U-values are based on secondary steelwork support at 1.8m centres, 1.2m bracket spacing and insulation with a 0.040W/mK thermal conductivity

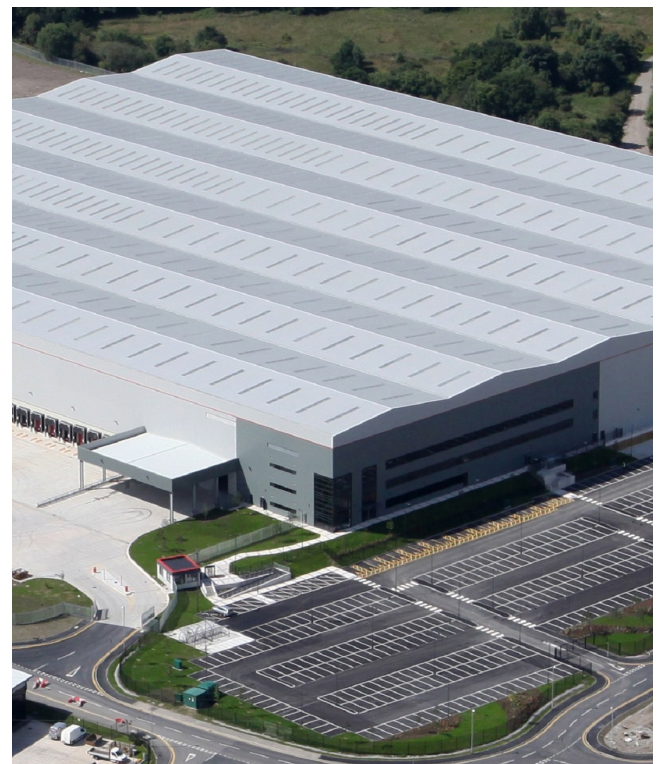
Air-tightness

- Airtightness for Trisobuild® systems is generated by the liner sheet. When end laps and side laps are sealed, as shown on next page, sheet laboratory tests have shown leakage rates of $<0.20\text{m}^3/\text{h}/\text{m}^2$ for liner side laps and $<0.30\text{m}^3/\text{h}/\text{m}^2$ for liner end laps.
- These low leakage rates together with robust junction detailing and workmanship will allow the system to comfortably meet and exceed the building regulation requirements.



Third party accreditations

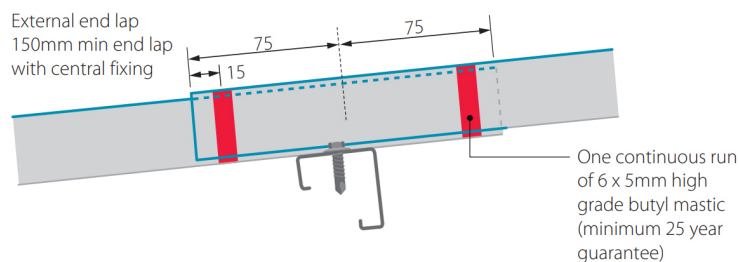
- LPCB (Loss Prevention Certification Board) approval to LPS 1181 Part 1.2 certified to EXT-B
- Specification is critical for compliance. Our Technical Team can help you with your specification drafting - or you can use our SPECGEN tool.



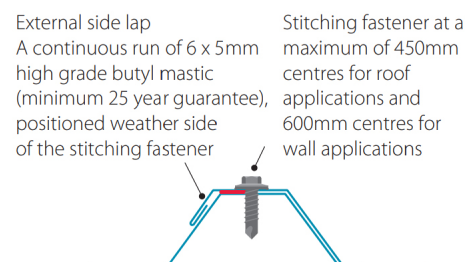
Weatherability and water penetration

- To meet the primary function, the outer sheet of the Trisobuild® system should be sealed at both side and end laps to ensure weathertightness from the outside - see details below. It is recommended that the Trisobuild® R and RWL systems are installed to a minimum design pitch of 4 degrees after deflection. The only exception is the 13.5/3 sinusoidal profile, which should be installed to a minimum pitch of 10 degrees.

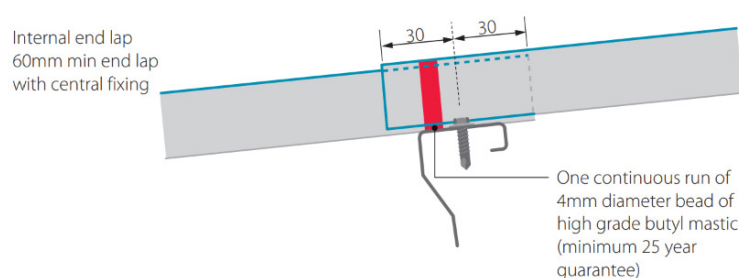
External end lap



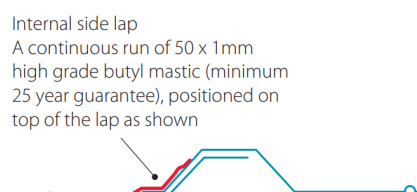
External side lap



Internal end lap



Internal side lap



Acoustic performance

- The method for determining the airborne sound insulation of a building is specified in BS EN ISO 10140-2. Airborne noise may be a consideration from either internal process noise breakout e.g. a factory in a residential area, or external noise break-in e.g. airport terminal buildings. A building with a higher Sound Reduction Index (SRI) has a better acoustic performance.

Building Systems UK has a wealth of acoustic performance test data and have developed an acoustic performance prediction calculation tool. The weighted sound reduction index (Rw) is calculated by comparing the 16 values of SRI from 100Hz to 3150Hz with a defined reference curve in accordance with BS EN ISO 717-1. The values from this tool are shown opposite for a selection of system depths.

For individual frequency performance or to change the system build up please contact the Technical Team, email: technical.envelopeproducts@tatasteeleurope.com

Table 4 - SRI weighted values, Rw(dB)

Insulation and cavity thickness (mm)	Trisobuild® R	Trisobuild® RWL
180	43.3	43.9
240	47.6	48.2
280	47.9	48.5
300	48.1	48.6

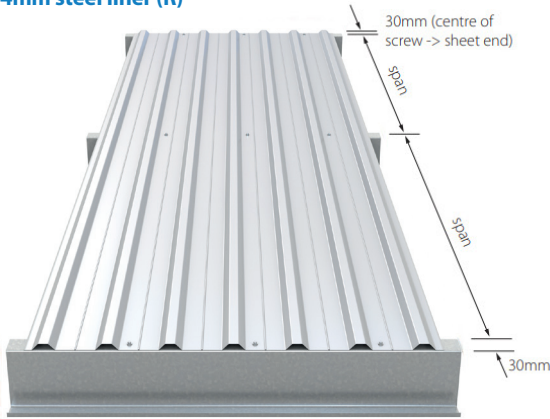
CAUTION: The predicted SRI values should be used only to provide guidance for preliminary design and/or appraisal of cladding systems. Laboratory measurements should still be used to provide definitive acoustic data

For a Trisobuild® system optimised for sound absorption performance please refer to [Trisobuild® SA \(sound absorption\) datasheet - click here.](#)

Liner non-fragility fixing arrangement

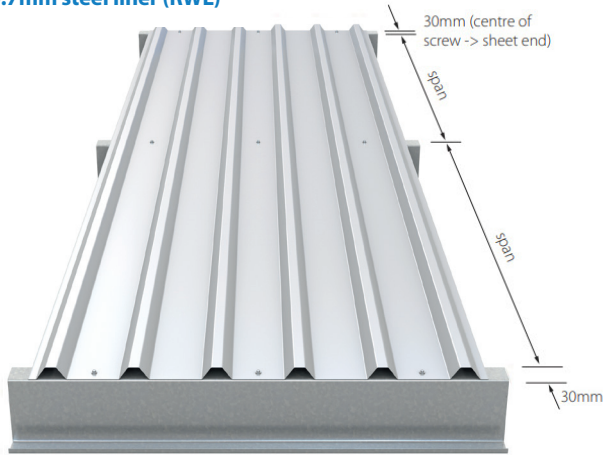
■ Assemblies are tested and assessed in accordance with ACR[M]001:2019 Test For Non-Fragility of Profiled Sheeted Roofing Assemblies (sixth addition).

LP1000 0.4mm steel liner (R)



Span arrangement:	Double span
Maximum span:	1,800mm
Number of fixings:	3 per sheet at all supports
Min. end distance:	30mm

RL32 0.7mm steel liner (RWL)



Span arrangement:	Double span
Maximum span:	2,000mm
Number of fixings:	3 per sheet at all supports
Min. end distance:	30mm

Site guidance

■ Guidance on delivery, offload loading and construction can be found [here](#). These recommendations should be considered together with our typical construction details which can be found below within our useful links.

Packaging

■ Packaging for the Trisobuild® system external and liner profiles include loose timber packers with the sheets banded together. An additional sheet of the same profile is used as the top sheet of each pack, to help protect the sheets below from scratching during transportation. The sheets are supplied in a maximum pack weight of 1,500kg.



Other useful links and downloads



- Declarations of performance
- BES 6001 Certification
- LPCB fire approval certification
- Typical Trisobuild® Roof CAD drawings
- Request an EPD
- Request a CPD

www.buildingsystemsuk.com

Trademarks of Tata Steel UK Limited

Trisobuild®, Colorocoat®, InstaLoc®, Confidex® and Platinum® Plus are registered trademarks of Tata Steel UK Limited.

While care has been taken to ensure that the information contained in this publication is accurate, neither Tata Steel, nor its subsidiaries, accept responsibility or liability for errors or for information which is found to be misleading.

Before using products or services supplied or manufactured by Tata Steel and its subsidiaries, customers should satisfy themselves as to their suitability.

Copyright 2025

Tata Steel UK Limited

Building Systems UK (A Tata Steel Enterprise)

Shotton Works

Deeside

Flintshire

CH5 2NH

United Kingdom

T: +44 (0) 1244 892199

E: technical.envelopeproducts@tatasteelurope.com

Registered Office: 18 Grosvenor Place, London, SW1X 7HS, Registered in England No. 02280000

Doc No: BSUK-E-0020-01